

CLIPPEDIMAGE= JP363086780A
PAT-NO: JP363086780A
DOCUMENT-IDENTIFIER: JP 63086780 A
TITLE: PRODUCTION OF COPPER FOIL ADHESIVE FOR COPPER-CLAD LAMINATE

PUBN-DATE: April 18, 1988

INVENTOR-INFORMATION:

NAME

KAWAI, TAKESHI
YOKOTA, MITSUO
NAKAMURA, YOSHIHIRO
KOBAYASHI, MAKOTO

ASSIGNEE-INFORMATION:

NAME

HITACHI CHEM CO LTD
HITACHI KASEI POLYMER KK

COUNTRY

N/A
N/A

APPL-NO: JP61231388

APPL-DATE: September 30, 1986

INT-CL (IPC): C09J003/16; B32B015/08 ; C09J003/14 ; C09J003/16

US-CL-CURRENT: 428/462, 428/463

ABSTRACT:

PURPOSE: To obtain the titled adhesive having improved adhesiveness, heat resistance of solder, self-extinguishing properties and tracking properties, by blending a thermosetting resin consisting of polyvinyl butyral and a phenol-formaldehyde resin of resol type with a specific amount of a brominated epoxy resin.

CONSTITUTION: (A) 100pts.wt. thermosetting resin consisting of polyvinyl butyral and a phenol-formaldehyde resin of resol type is blended with (B) 10~200pts.wt. brominated epoxy resin (preferably 200~1,000 epoxy equivalent and 20~55% bromination ratio) to give the aimed adhesive.

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L Number	Hits	Search Text	DB	Time stamp
1	37050	metal adj foll	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:52
2	23052	polyvinyl same (butyral or acetal)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:52
3	82422	(thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:54
4	659344	adhesive	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:54
5	2442	(polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:54
6	132	(metal adj foll) and ((polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate)))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:55
7	106	adhesive and ((metal adj foll) and ((polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate))))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:55
8	2	((metal adj foll) and ((polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate)))) and 524/\$7.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:56
9	55	((metal adj foll) and ((polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate)))) and 428/\$7.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 11:23
10	153148	bisphenol same(s or f or "AD") or epoxy adj resin	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 11:25
11	2364	Epikote\$ same ("817" or "815" or "828" or "1001" or "1004" or "872" Or "871")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 11:29
12	57820	(copper or aluminum or nickel) same foll	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 11:30

L Number	Hits	Search Text	DB	Time stamp
1	37050	metal adj foil	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:52
2	23052	polyvinyl same (butyral or acetal)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:52
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9	55	((metal adj foil) and ((polyvinyl same (butyral or acetal)) and ((thermosett or thermosetting) same resin or polyfunctional same (acrylate or methacrylate)))) and 428/\$7.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/09/19 10:56

DERWENT-ACC-NO: 1988-144440
DERWENT-WEEK: 198821
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TITLE: Adhesive for laminating copper foil with laminated prepreg sheet -
comprises polyvinyl butyral resin and phenol!-formaldehyde! resin of resol
type
and brominated epoxy! resin

PATENT-ASSIGNEE: HITACHI CHEM CO LTD[HITB], HITACHI KASEI POLYMER KK[HITAN]

PRIORITY-DATA: 1986JP-0231388 (September 30, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	
MAIN-IPC				
JP 63086780 A	April 18, 1988	N/A	003	N/A

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP63086780A	N/A	1986JP-0231388	September
30, 1986			

INT-CL_(IPC): B32B015/08; C09J003/16

ABSTRACTED-PUB-NO: JP63086780A

BASIC-ABSTRACT: Adhesive comprises 100 pts. wt. thermosetting resin blend of
polyvinyl butyral resin and phenol/formaldehyde resin of resol type and 10-200
pts. wt. brominated epoxy resin.

The brominated epoxy resin has pref. epoxy equiv. of 200-1000 and bromination
deg. of 20-55%.

USE/ADVANTAGE - It has high adhesion, high resistance to heat on soldering and
tracking and high self-extinguishing activity. It is used as a base board for
electronic parts secured by inserting terminals of electronic parts through
drilled through-holes and immersing it into a molten solder bath.

In an example, polyvinyl butyral resin (60 pts. wt.) and phenol/ formalin
resin of resol type (40 pts. wt.) were dissolved into acetone to provide a
20%
soln. The soln. was added with brominated epoxy resin of bisphenol A type (10
pts. wt. per 100 pts. wt. of solids in the soln.). 35 Micron thick Cu foil
was coated with the adhesive in dry thickness of 30 g/m2 and hot pressed
together with paper impregnated with phenol resin to provide a Cu-lined
laminated sheet having a peeling strength of 1.7 kg/cm2 as measured by JIS
C-6481 and soldering resistance at 260 deg.C of 20 as measured by JIS C-6481.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

ADHESIVE LAMINATE COPPER FOIL LAMINATE PREPREG SHEET COMPRISE POLYVINYL
BUTYRAL
RESIN POLYPHENOL POLYFORMALDEHYDE RESIN RESOL TYPE BROMINATED POLYEPOXIDE
RESIN

DERWENT-CLASS: A14 A21 A81 G03 L03 P73

CPI-CODES: A05-C03; A07-A04A; A10-E02; A10-E04A; A12-A05; A12-E07A; G03-B02D2;
G03-B02E1; G03-B02E2; L03-H04E1;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0272U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0036 0208 0218 0231 1277 1282 3183 1357 1373 1517 1601 1992 2003
2020 2318 2336 2378 2427 2439 2507 2552 2600 2607 2654 3252 2679 2682 2685
2725

2728 2737 2740

Multipunch Codes: 014 04- 040 045 062 080 140 180 199 213 214 215 220 221 226
231 232 233 241 316 331 332 336 37& 392 398 400 427 431 442 47& 473 477 506
510

539 54& 541 545 575 596 597 600 609 623 627 628 681 720 726

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-064602

Non-CPI Secondary Accession Numbers: N1988-110153